

10/536706
JC06 Rec'd PCT/PTO 27 MAY 2005

Article 34
Amendment

AMENDMENT

To: Examiner of the Patent Office


1. Identification of the International Application
PCT/JP03/15200

2. Applicant

Name: SHARP KABUSHIKI KAISHA
Address: 22-22, Nagaikecho, Abeno-ku, Osaka-shi
Osaka 545-8522 Japan
Country of nationality: Japan
Country of residence: Japan

3. Agent

Name: 7828 Patent Attorney YAMAMOTO Shusaku

Signature 

Address: Fifteenth Floor, Crystal Tower
2-27, Shiromi 1-chome, Chuo-ku, Osaka-shi
Osaka 540-6015 Japan

4. Item to be Amended: Claims

5. Subject Matter of Amendment

(1) Claim 7 should be cancelled.

6. List of Attached Documents

(1) Replacement sheet of page 17

10/536706

JCO6 Rec'd PCT/PTO 27 MAY 2005

17

CLAIMS

1. A method of growing a p-type nitride semiconductor material by molecular beam epitaxy, the method comprising supplying bis(cyclopentadienyl)magnesium (Cp_2Mg) during the growth process.
2. A method as claimed in claim 1 wherein the nitride semiconductor material is p-type (Ga, Al)N.
3. A method as claimed in claim 1 or 2 and comprising supplying ammonia gas during the growth process.
4. A method as claimed in claim 1, 2 or 3 and comprising supplying ammonia gas, gallium and Cp_2Mg to a growth chamber, thereby to grow a layer of p-type GaN.
5. A method as claimed in claim 1, 2 or 3 and comprising supplying ammonia gas, aluminium, gallium and Cp_2Mg to a growth chamber, thereby to grow a layer of p-type AlGaN.
6. A method as claimed in any preceding claim, and comprising changing the supply rate of Cp_2Mg during the growth of the nitride semiconductor material.
7. (Cancelled)
8. A method as claimed in any preceding claim wherein the growth process is carried out at a temperature of at least 800°C .
9. A method as claimed in any preceding claim wherein the growth process is carried out at a temperature of at least 850°C .

BEST AVAILABLE COPY